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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,368	05/18/2005	Mathias Wagner	DE02 0270 US	9383
65913	7550	02/27/2008		
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131				
EXAMINER				
SALERNO, SARAH KATE				
ART UNIT		PAPER NUMBER		
2814				
NOTIFICATION DATE		DELIVERY MODE		
02/27/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

### Office Action Summary

**Application No.**

10/535,368

**Applicant(s)**

WAGNER ET AL

**Examiner**

SARAH K. SALERNO

**Art Unit**

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's amendment/arguments filed on 12/04/07 as being acknowledged and entered. By this amendment claims 1-10 are canceled, claims 11-24 have been added, claims 11-24 are pending and no claims are withdrawn.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (US Patent 6,026,017) in view of Bretschneider et al (US PGPub 2002/0130248).

Claim 11: Wong teaches an electronic memory component, comprising:  
a receiving substrate (44), wherein the receiving substrate is doped;  
a memory cell matrix embedded in the receiving substrate (44)  
a top/protective substrate (46) to at least partially surround the receiving substrate on at least once side of the receiving substrate remote from the memory cell matrix wherein the top/protective substrate is doped opposite to the receiving substrate (Fig. 1-2).

Wong does not teach a circuit arrangement in contact with at least one substrate of the receiving substrate and the top/protective substrate for detection of a voltage or a

current in response to generation of charge carriers in the at least one substrate upon light incidence on the electronic memory component. Bretschneider teaches a circuit arrangement for the detection of voltages or currents cause by charge carriers generated upon light incidence to protect unauthorized or unpermitted irradiation of the chip arrangement which might change the mode of operation of the chip arrangement [0032]. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the memory cell matrix taught by Wong to use a comparator to protect the device from irradiation that might change the mode of operation of the memory cell taught as taught by Bretschneider [0032].

Claim 12: Bretschneider teaches the circuit arrangement comprises a comparator circuit (20) [0032].

Claim 13: Bretschneider teaches the comparator circuit is connected with the receiving substrate, via an electrical contact, to detect the voltage or the current in the receiving substrate (FIG. 1-2).

Claim 14: Bretschneider teaches the comparator circuit is connected with the top/protective substrate, via an electrical contact to detect the voltage or the current in the top/protective substrate (FIG. 1-2).

Claim 15: Bretschneider teaches the electronic memory component is configured to deny access to the memory component in response to detection by the circuit arrangement of the voltage in the excess of a limit voltage or the current in excess of a limit current [0031-0033, 0037, 0040-0043].

Claim 16: Bretschneider teaches the electronic memory component is configured to emit an alarm to a controlling central processing unit (CPU) (40) in response to detection by the circuit arrangement of the voltage in excess of a limit voltage or the current in excess of a limit current [0031-0033, 0037-0043].

Claim 17: Wong teaches the top/protective substrate (46) comprises a well to surround the receiving substrate (44) in the manner of a well (FIG. 2).

Claim 18: Wong teaches a carrier substrate, wherein the top/protective substrate (46) is associated with at least one carrier substrate (48).

Claim 19: Wong teaches the top/protective substrate (46) is buried in the carrier substrate (48).

Claim 20: Wong teaches the receiving substrate (44) is p-doped, the top/protective substrate (46) is n-doped and the carrier substrate (48) is p-doped (FIG. 2, Col. 2 line 61).

Claim 21: Wong teaches an external source associated with the memory cell matrix wherein the external source (32) comprises a contact:

- a bitline (14) associated with the memory cell matrix

- a wordline (12a) associated with the memory cell matrix; and

- a control gate (36a) associated with the memory cell matrix (FIG. 1-2)

Claim 22: Wong teaches the electronic memory component comprises an Erasable Programmable Read Only Memory, an Electrical Erasable Programmable Read Only Memory or a Flash memory (Col. 3 line 12).

Claim 23: Bretschneider teaches the electronic memory component is configured to continuously detect for light incidence in the form of light attack ([0030-0032]; Abs)

Claim 24: Bretschneider teaches the electronic memory component is on a smart card (Abstract, [0030-0032]).

### ***Response to Arguments***

4. Applicant's arguments filed 12/04/07 have been fully considered but they are not persuasive.

Applicant argues that Wong and Bretschneider do not teach the generation of charge carriers in at least one substrate upon light incidence. Applicant's arguments are not persuasive because it is noted that where the claimed and prior art products are identical or substantially identical in structure or composition or are produced by identical or substantially identical processes, claimed properties or functions are presumed to be inherent. In re Best, 195 USPQ 430, 433 (CCPA 1977). It has also been held that products of identical chemical composition cannot have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior arts teach the identical chemical structure the properties applicant discloses and/or claims are necessarily present. In re Spada, 15 USPQ 2d 1655, 1658 (Fed. Cir. 1990). In this case the substrate structure taught by Wong would inherently have the property of being able to detect a voltage or current in response to a generation of charge carriers in the at least one substrate upon light incidence

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because the substrate structure taught by Wong coincide with the claim limitations.

Bretschneider also teaches the generation of carriers upon light incidence which are comparatively processed to protect a smart card from light attack ([0030-0034, 0038];

Abs)

Applicant also argues that Wong and Bretschneider do not teach generating or sending an alarm to a CPU in response to detection of excess voltage or current.

Bretschneider teaches emitting a failure message upon excess voltage or current to a CPU (40) as described above in claim 16.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARAH K. SALERNO whose telephone number is (571)270-1266. The examiner can normally be reached on M-R 7:30-5:00pm every other F 7:30-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. K. S./  
Examiner, Art Unit 2814

*/Theresa T. Doan/  
Primary Examiner, Art Unit 2814*